

1  
2  
3  
4 BILL NO. S-77-10-15

5 SPECIAL ORDINANCE NO. S-225-77

6 AN ORDINANCE approving Change Orders No.  
7 15 and 16 in connection with Water  
8 Pollution Control Plant Additions.

9 BE IT ORDAINED BY THE COMMON COUNCIL OF THE CITY OF  
10 FORT WAYNE, INDIANA:

11 SECTION 1. That Change Order No. 15 to Hagerman-  
12 Shambaugh in connection with Water Pollution Control Plant Add-  
13 itions, request for changes and modifications in the area of the  
14 main control room, computer room and the relocation of the lunch  
15 room necessitated by size of master control system (Larger than  
16 initially anticipated) in the amount of \$67,897.00, as set out  
17 in the specifications, is hereby in all things ratified, con-  
18 firmed and approved.

19 SECTION 2. That Change Order No. 16 to Hagerman-  
20 Shambaugh in connection with Water Pollution Control Plant Add-  
21 itions, request for addition of overflow sump and submersible  
22 pump, new space heater in digester gas compressor room, replace-  
23 ment of two existing electric operated waste sludge butterfly  
24 valves, addition of 42" butterfly valve on new 42" air main,  
25 heating system for new concrete pipe channel from chlorination  
26 bldg., replacement of underground cable which has faults, new  
27 pipe anchors for water system to sustain high pressures, plus  
28 various modifications, replacements and substitutions of wall,  
29 ceiling and bldg. material damaged, cracked, buckled or  
30 insufficient to support additional weight commensurate with  
31 material modification in the amount of \$91,664.00, as set out  
32 in the specifications, is hereby in all things ratified, confirm-  
33 ed and approved.

34 SECTION 2. This Ordinance shall be in full force and  
35 effect from and after its passage and approval by the Mayor.

APPROVED AS TO FORM  
AND LEGALITY.

  
Councilman

Read the first time in full and on motion by Burns, seconded by Talarico, and duly adopted, read the second time by title and referred to the Committee on City Utilities (and the City Plan Commission for recommendation) and Public Hearing to be held after due legal notice, at the Council Chambers, City-County Building, Fort Wayne, Indiana, on \_\_\_\_\_, the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_ at \_\_\_\_\_ o'clock \_\_\_\_\_ M., E.S.T.

DATE: 10-11-77

Charles W. Wisterman  
CITY CLERK

Read the third time in full and on motion by Burns, seconded by Hinga, and duly adopted, placed on its passage.

PASSED (~~LOST~~) by the following vote:

	<u>AYES</u>	<u>NAYS</u>	<u>ABSTAINED</u>	<u>ABSENT</u>	<u>TO-WIT:</u>
<u>TOTAL VOTES</u>	<u>9</u>	<u>0</u>	_____	_____	_____
<u>BURNS</u>	<u>X</u>	_____	_____	_____	_____
<u>HINGA</u>	<u>X</u>	_____	_____	_____	_____
<u>HUNTER</u>	<u>X</u>	_____	_____	_____	_____
<u>MOSES</u>	<u>X</u>	_____	_____	_____	_____
<u>NUCKOLS</u>	<u>X</u>	_____	_____	_____	_____
<u>SCHMIDT, D.</u>	<u>X</u>	_____	_____	_____	_____
<u>SCHMIDT, V.</u>	<u>X</u>	_____	_____	_____	_____
<u>STIER</u>	<u>X</u>	_____	_____	_____	_____
<u>TALARICO</u>	<u>X</u>	_____	_____	_____	_____

DATE: 10-25-77

Charles W. Wisterman  
CITY CLERK

Passed and adopted by the Common Council of the City of Fort Wayne, Indiana, as (ZONING MAP) (GENERAL) (ANNEXATION) (SPECIAL) (APPROPRIATION) ORDINANCE (RESOLUTION) No. S-225-77 on the 25th day of October, 1977.  
ATTEST: (SEAL)

Charles W. Wisterman  
CITY CLERK

John Nuckols  
PRESIDING OFFICER

Presented by me to the Mayor of the City of Fort Wayne, Indiana, on the 26th day of October, 1977, at the hour of 11:30 o'clock A. M., E.S.T.

Charles W. Wisterman  
CITY CLERK

Approved and signed by me this 26th day of October, 1977, at the hour of 4:00 o'clock P. M., E.S.T.

Robert E. Armstrong  
MAYOR

Bill No. S-77-10-15

REPORT OF THE COMMITTEE ON CITY UTILITIES

We, your Committee on City Utilities to whom was referred an Ordinance  
approving Change Orders No. 15 and 16 in connection with Water  
Pollution Control Plant Additions.

have had said Ordinance under consideration and beg leave to report back to the Common  
Council that said Ordinance do PASS.

PAUL M. BURNS - CHAIRMAN

FREDRICK R. HUNTER - VICE CHAIRMAN

VIVIAN G. SCHMIDT

WINFIELD C. MOSES, JR.

JAMES S. STIER

10-25-77

CONCURRED IN

DATE

CHARLES W. WESTERMAN, CITY CLERK

65-80-16

Job No. 3263.8D

PROJECT Water Quality Control Project OWNER City of Fort Wayne, Indiana

DIVISION/XXXXXX 1 - Water Pollution Control Plant Additions

CHANGE ORDER NO.

15

TO: Hagerman-Shambaugh - Joint Bidders

% Hagerman Construction Corporation

P.O. Box 690 - 403 Strauss Building

Fort Wayne, Indiana 46801

You are hereby authorized to make the following additions and/or deductions to your contract amount.

	Previous Contract Amount	Increase	Decrease	Net Change (Deduct) (Add)	Revised Contract Amount
TOTAL	\$ 21,146,931.10	\$ 68,336.00	\$ 439.00	\$ 67,897.00	\$ 21,214,828.10

Description of Change:AddDeductItem No. 1

Furnish all labor and material necessary to revise the floor plan of the new Control, Computer, Conference and Lunch Rooms. Listed below is a breakdown of work and material required to perform the work as shown on the attached drawings.

- A. Furnish and install new 14x84 steel lintel 19'-7" long in lieu of the 12x40 x 16'-6" long lintel as specified. \$ 644.00
- B. Furnish and install 2 new precast roof panels for the computer room area to handle the additional weight of new air conditioner. 1,035.00
- C. Furnish and install 400 sq. ft. of new 8" raised pedestal floor including ramps, steps, 8" high closure panel and aluminum handrail, in the proposed new computer room. 4,791.00

PAGE NO. 2CHANGE ORDER NO. 15PROJECT Division I - Water Pollution Control Plant Addition

	<u>Add</u>	<u>Deduct</u>
<u>Item No. 1 - (Continued)</u>		
D. Furnish and install new vinyl asbestos floor covering, acoustical ceiling tile and miscellaneous painting in the existing sludge control room that is being converted to the proposed new lunch room area.		
E. Furnish all labor and material required to make the revision to the new wall partitions, doors and windows as shown on attached drawing No. CR-a.	\$ 1,575.00	
F. Furnish and install approximately 800 S.F. of new wood paneling in locations shown on Drawing No. CR-a.		\$ 439.00
G. Furnish all labor and material required to do all demolition, cutting and patching work as shown in the area of the new proposed control and lunch room area on Drawings No. CR-A., B., C and D.	2,117.00	
H. Furnish and install one new roof top air-conditioning unit.	3,190.00	
I. Furnish and install all new duct work, insulation temperature control system and humidifier as shown on Drawing No. M-1.	6,594.00	
J. Furnish all labor and material required to complete all necessary masonry work as shown on Drawing CR-a.	14,714.00	
K. Furnish all labor and material required to complete all electrical work as shown on Drawings CR-a, CR-c, EE-3 and M-1.	1, 223.00	
L. Furnish all labor and material necessary to re-route the existing primary sludge piping for tanks numbers 6, 7 and 8, and add a backflushing air and water system to the new sludge lines. The proposed changes and additions are shown on attached drawing CR-d.	14,004.00	
	15,387.00	

PAGE NO. 3

CHANGE ORDER NO. 15

PROJECT Division I - Water Pollution Control Plant Addition

Add.

Deduct

Item No. 1 - (Continued)

- M. Furnish all labor and material necessary to cut in a new exterior door opening in the existing primary sludge room and construct a new concrete stairs and stoop in the location as shown on the attached drawings No. B-2 and BS-3.

3,062.00

Totals

\$ 68,336.00

\$ 439.00

Total Add

\$ 67,897.00

Note:

These changes do not affect the contract completion date.

RECOMMENDED:

HENRY B. STEEG & ASSOCIATES, A DIVISION  
OF HOWARD NEEDLES TAMMEN & BERGENDOFF

By

Ray H. Kocher

Title

Project Engineer Date 8/15/77

ACCEPTED:

HAGERMAN-SHAMBAUGH

ACCEPTED FOR: HAGERMAN CONSTRUCTION CORP.  
CONTRACTOR

By

Mark F. Hagerman

Title

Vice Pres Date 9/15/77

ACCEPTED FOR: SHAMBAUGH & SON, INC.  
CONTRACTOR

By

Ray F. Shambaugh

Title

Geny Date 9-16-77

APPROVED:

CITY OF FORT WAYNE, INDIANA  
OWNER

By

Henry P. Wehrenberg  
Henry P. Wehrenberg, Chairman  
Ethel H. LaMar

Ethel H. LaMar, Member

Max Scott, Member

Title

BOARD OF PUBLIC WORKS

Date:

10/3/77

REQUEST AND JUSTIFICATION FOR CHANGE

1. Necessity for change: The request for the changes and modifications in the area of the main control room, computer room and the relocation of the lunch room is necessary because the size of the master control panel and process control system will be larger than initially anticipated. Following is a brief description of the proposed changes from the original contract.

The computer and control room is proposed to be increased by 400 sq. ft. to accommodate the required new equipment. The increased room size requires a longer and heavier steel lintel to span the control room plus reworking the masonry wall on top and both ends of the new lintel. The new wall partitions required relocation and the addition of approximately 400 sq. ft. of new 8" raised floor. Additional wood panel will be needed to cover the rough masonry walls that weren't originally to be covered.

The relocation of the lunch room plus the increased electrical equipment in the control room will increase heating, ventilating and air-conditioning requirements of the new roof top air-conditioning unit. Therefore, a size increase of the new air-conditioning unit, air ducts, controls and electrical service will be needed. With the new unit being mounted on the roof, the precast roof slabs will be required to be replaced with stronger slabs.

The space designed for the proposed new lunch room as shown on the contract drawings was consumed with the new computer equipment allowance. The lunch room therefore has to be relocated to an area which removal of existing equipment and patching work as well as new flooring, ceiling, lighting and electrical service are required. The new lunch room area presently serves as a primary sludge control room. A new entrance with steps and a exterior door will be required in the east wall of the existing sludge draw room to allow a entrance to the room without going through the new lunch room. The relocation of the existing primary sludge line backflushing water system plus the addition of a new air flushing system will also be required.

2. Will proposed change alter size of the project? Yes X No

If yes, explain

Additional material and labor is required.

3. Affect on operation and maintenance cost of this project:

N/A

65-80-16

11/3/77

Job No. 3263.8D

PROJECT Water Quality Control Project OWNER City of Fort Wayne, IndianaDIVISION/~~XXXXXXXX~~ I - Water Pollution Control Plant AdditionsCHANGE ORDER NO. 16TO: Hagerman-Shambaugh - Joint Bidders% Hagerman Construction CorporationP.O. Box 690 - 403 Strauss BuildingFort Wayne, Indiana 46801

You are hereby authorized to make the following additions and/or deductions to your contract amount.

	Previous Contract Amount	Increase	Decrease	Net Change ( <del>XXXXXXXX</del> ) (Add)	Revised Contract Amount
TOTAL	\$ 21,214,828.10	\$ 91,664.00	\$ --	\$ 91,664.00	\$ 21,306,492.10

Description of Change:AddDeductItem No. 1

Furnish all labor and material necessary to add two new overflow boxes with sump pumps to the two new sample sinks located in the new and existing aeration pipe tunnels. See attached sketches. Following is a breakdown of the cost:

Material	\$4,033.00
Labor	1,856.00
Electrical	2,870.00
Painting	98.00

Add

\$ 8,857.00

Item No. 2

Furnish all labor and material necessary to install a new space unit heater in the new gas compressor room located in the digester building. Following is a breakdown of the cost:

Material	\$1,061.00
Labor	409.00
Electrical	1,185.00
Painting	108.00

Add

2,763.00



PAGE NO. 2

CHANGE ORDER NO. 16

PROJECT Water Quality Control Project, Division I - Water Pollution Control Plant

Add

Deduct

Item No. 3

Furnish all labor and material necessary to replace two existing waste sludge butterfly valves with two new electric operated plug valves located in existing aeration pipe gallery. Attached sketch shows location of the proposed new valves. Following is a breakdown of cost:

Material	\$8,459.00
Labor	831.00
Electrical	2,164.00
Paint	<u>337.00</u>

Add

\$11,791.00

Item No. 4

Furnish all labor and material necessary to install one new 42-inch butterfly valve in the new 42-inch air main located south of the existing aeration tanks.

Add

7,563.00

Item No. 5

Furnish all labor and material necessary to add a new 18-inch square steel air duct and fan to the new chemical pipe channel as shown on attached sketch. This addition also involves revising one of the new exhaust fans and adding new thermostats. Following is a breakdown of cost:

Material	\$ 849.00
Labor	4,641.00
Electrical	3,074.00
Painting	<u>230.00</u>

Add

8,794.00

PAGE NO. 3

CHANGE ORDER NO. 16

PROJECT Water Quality Control Project - Division I - Water Pollution Control Plant

Add

Deduct

Item No. 6

Furnish all labor and material necessary to install new electrical underground cable extending from the existing storm-water pumping station to the new aeration control panel located in the existing aeration building. Approximately 2400 linear feet will be required. Following is a breakdown of cost:

Material	\$ 9,136.00	
Labor	<u>14,030.00</u>	
Add		23,166.00

Item No. 7

Furnish all labor and material necessary to install new pipe anchors to the existing plant water line as shown on the attached drawing #EA-10, Sheet No. 83 of 153.

821.00

Item No. 8

Furnish all labor and material necessary to install one new structural steel channel to reinforce the existing concrete slab, located at the stair opening in the existing Aeration Building. See the attached sketch for structural details.

225.00

Item No. 9

Furnish all labor and material necessary to increase the size of the concrete foundation for the new Jib Crane. The base increases from 6'x6'x5' deep to 9'x9'x5' deep. The increased size will increase the amount of reinforced concrete and excavation by 10 cubic yards.

1,551.00

Item No. 10

Furnish all labor and material necessary to remove and replace a section of damaged existing Terra Cotta wall located in the Main Control Building.

PAGE NO. 4

CHANGE ORDER NO. 16

PROJECT Water Quality Control Project - Division I - Water Pollution Control Plant

Item No. 10 - (Continued)

Add

Deduct

Following is a breakdown of cost:

Material	\$ 1,804.00	
Labor	<u>365.00</u>	
Add		\$ 2,169.00

Item No. 11

Furnish all labor and material necessary to modify the existing roof construction on the existing Stormwater Pumping Station Building. The proposed modification entails removal of the existing metal roof and replacing it with a new built-up roof. The following is a cost breakdown:

New Material	\$14,267.00	
Labor	8,279.00	
Equipment Rental	775.00	
Deletion of new framing	<u>1,800.00</u>	
		21,521.00

Item No. 12

Furnish all labor and material necessary to substitute the types of wall and ceiling material that is to be installed in the existing Stormwater Pump Room as specified under Section D-24 and as shown on Drawing No. 112 of 153 of the contractual specifications and drawings. The proposed changes are to install a 12' high by 6" high masonry wall and a 2'x4' exposed aluminum grid suspension ceiling in lieu of the metal wall and ceiling panels as specified. The following is a cost breakdown.

New Masonry	\$ 7,074.00	
New Suspended Ceiling	1,947.00	
Painting	979.00	
Delete metal liner panels on walls and ceiling	<u>10,000.00</u>	
		0
		0

PAGE NO. 5

CHANGE ORDER NO. 16

PROJECT Water Quality Control Project - Division I - Water Pollution Control Plant

Item No. 13

Add

Deduct

Furnish all labor and material necessary to revise the proposed routing of the new natural gas line to the raw sewage pump drive engine and plant heating boilers located in the existing Main Control Building. The following is a cost breakdown:

New Material	\$ 1,175.00
Labor	856.00
Painting and Coring	<u>412.00</u>

\$ 2,443.00

TOTAL ADD

\$91,664.00

0

NOTE:

These changes do not affect Contract completion date.

RECOMMENDED:

HENRY B. STEEG & ASSOCIATES, A DIVISION  
OF HOWARD NEEDLES TAMMEN & BERGENDOFF

By Ray H. Wehner

Title Project Engineer Date 9/15/77

ACCEPTED:

HAGERMAN-SHAMBAUGH

ACCEPTED FOR: HAGERMAN CONSTRUCTION CORP.  
CONTRACTOR

By Harold F. Hagerman

Title Vice Pres. Date 9/16/77

ACCEPTED FOR: SHAMBAUGH & SON, INC.

CONTRACTOR

By Ray F. Shambaugh

Title Geny Date 9-16-77

APPROVED:

CITY OF FORT WAYNE, INDIANA

OWNER

By Henry P. Wehrenberg

Henry P. Wehrenberg, Chairman

Ethel H. LaMar

Ethel H. LaMar, Member

Max G. Scott

Max Scott, Member

Title BOARD OF PUBLIC WORKS

Date: 10/3/77

REQUEST AND JUSTIFICATION FOR CHANGE

1. Necessity for change: The addition of an overflow sump and submersible pump at the two new sample sink locations are necessary to prevent the sinks from overflowing while the secondary settling tanks are being drained for servicing. Normal operation will be that the new sinks will drain to the existing drain system, but when the plant drain system is flowing full, it will not allow the sink to drain by gravity. The proposed change will permit continuous sampling of secondary effluent.
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

2. Will proposed change alter size of the project? Yes X No \_\_\_\_\_

If yes, explain

Additional labor and material required.

\_\_\_\_\_

\_\_\_\_\_

3. Affect on operation and maintenance cost of this project:

N/A

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
Engineer

REQUEST AND JUSTIFICATION FOR CHANGE

1. Necessity for change: The addition of a new space heater located in the digester gas compressor room is necessary to provide heat for the compressor room during periods when the gas compressors are out of service. Normal operation of the compressors will provide more than enough heat to keep the gas aftercooler water supply and drain lines from freezing.
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

2. Will proposed change alter size of the project? Yes X No

If yes, explain

Additional labor and material required.

\_\_\_\_\_

\_\_\_\_\_

3. Affect on operation and maintenance cost of this project:

N/A

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
Engineer

REQUEST AND JUSTIFICATION FOR CHANGE

1. Necessity for change: The request for the replacement of the two existing electric operated waste sludge butterfly valves is necessary because the two existing valves have been in service for 16 years and the new control equipment is not available to interface with the old electric controls. There are 7 new valves being installed on the new waste sludge line, with the replacement of the two valves it would make all waste sludge valves identical for control and control devices.
2. Will proposed change alter size of the project? Yes X No \_\_\_\_\_  
If yes, explain  
Additional labor and material required.
3. Affect on operation and maintenance cost of this project:  
With the replacement of the two valves, the drawing of waste sludge from each of the 9 secondary settling tanks can be controlled more accurately. Maintenance can be performed at less cost for service time and material because only one style and type of equipment is used and less inventory of parts is required. Further, parts are interchangeable.

\_\_\_\_\_  
Engineer

REQUEST AND JUSTIFICATION FOR CHANGE

1. Necessity for change: The addition of a 42" butterfly valve on the new 42" air main which feeds air from the new blowers to the aeration system is necessary to provide a way of isolating portions of the new air main for maintenance on the main and the new 18-inch butterfly valves at each cell of the aeration system without shutting down of the whole air system. The addition of the valve will also allow the plant personnel to balance the air flow more accurately.
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

2. Will proposed change alter size of the project? Yes X No \_\_\_\_\_

If yes, explain

Additional labor and material required.

\_\_\_\_\_

\_\_\_\_\_

3. Affect on operation and maintenance cost of this project:

N/A

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
Engineer



REQUEST AND JUSTIFICATION FOR CHANGE

1. Necessity for change: The request for the addition of a heating system for the new concrete pipe channel extending from the existing Chlorination Building to the new railroad tank car unloading facility is necessary to prevent a water line to a safety shower located at the facility and the chemical line from freezing during the cold months of the year.
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

2. Will proposed change alter size of the project? Yes x No \_\_\_\_\_

If yes, explain

Additional labor and material required.

\_\_\_\_\_

\_\_\_\_\_

3. Affect on operation and maintenance cost of this project:

N/A

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
Engineer

REQUEST AND JUSTIFICATION FOR CHANGE

1. Necessity for change: The replacement of the underground cable is necessary because the existing control cable has several existing ground faults and is totally unreliable and serviceable for use for the new instrumentation and control system.

2. Will proposed change alter size of the project? Yes x No \_\_\_\_\_

If yes, explain

Additional material and labor required.

3. Affect on operation and maintenance cost of this project:

N/A

\_\_\_\_\_  
Engineer

REQUEST AND JUSTIFICATION FOR CHANGE

1. Necessity for change: New pipe anchors are necessary because the existing plant  
water line is proposed as part of the new plant water system, and cannot sustain the  
high water pressures without additional supports. Supports were not required for the  
existing line previously because such line was used as a suction line and thrust  
was not a problem.

2. Will proposed change alter size of the project? Yes X No

If yes, explain

Additional labor and material required.

3. Affect on operation and maintenance cost of this project:

N/A

\_\_\_\_\_  
Engineer

REQUEST AND JUSTIFICATION FOR CHANGE

1. Necessity for change: The installation of a new C 8x11.5 structural member located at the stairwell opening in the existing Aeration Building is necessary because the new Motor Control Center No. P-4 will be located over the counterlevered portion of the existing floor slab and the Motor Control Center load is greater than anticipated.
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

2. Will proposed change alter size of the project? Yes X No \_\_\_\_\_

If yes, explain

Additional labor and material required.

\_\_\_\_\_

\_\_\_\_\_

3. Affect on operation and maintenance cost of this project:

N/A

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
Engineer

REQUEST AND JUSTIFICATION FOR CHANGE

1. Necessity for change: The increase in foundation size for the new jib crane is due to poor soil condition encountered during excavation for the proposed concrete base. The increased size of concrete base will distribute the live and dead loads of the crane over a larger area which will decrease the load applied to the soil per square foot.

2. Will proposed change alter size of the project? Yes X No \_\_\_\_\_

If yes, explain

Additional labor and material required.

3. Affect on operation and maintenance cost of this project:

N/A

\_\_\_\_\_  
Engineer

REQUEST AND JUSTIFICATION FOR CHANGE

1. Necessity for change: The replacement of the section of damaged Terra Cotta Wall  
in the Main Control Building is necessary because the ~~wall~~ had cracked and buckeled  
due to heat and age. The new Motor Control Center is to be located against the  
wall. To prevent possible damage to the new MCC if the Terra Cotta veneer should  
happen to fail, the wall should be replaced before the MCC is placed against it.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. Will proposed change alter size of the project? Yes X No \_\_\_\_\_  
If yes, explain  
Additional labor and material required.  
\_\_\_\_\_  
\_\_\_\_\_
3. Affect on operation and maintenance cost of this project: .  
N/A  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Engineer

REQUEST AND JUSTIFICATION FOR CHANGE

1. Necessity for change: The modifications to the existing roof system is necessary  
because the existing metal roofing cannot accept the two 12'x11' access hatches and  
the required exhaust fans as shown on the plans. The roof openings take up too much  
of the roof area to allow proper water drainage. With the installation of the new  
built-up roof, the roof surface water will be able to be directed away from the hatches.  
This will reduce the possibility of water leaks. The work includes removal of the  
existing roof decking, respacing the purlines, additional framing, cutting existing siding,  
installing new metal roof decking, removal and replacement of the existing roof fans  
and hatches, installing insulation and built-up roof and sheet metal.

2. Will proposed change alter size of the project? Yes X No \_\_\_\_\_

If yes, explain

Additional labor and material required.

3. Affect on operation and maintenance cost of this project:

N/A

\_\_\_\_\_  
Engineer

REQUEST AND JUSTIFICATION FOR CHANGE

1. Necessity for change: The substitution of the proposed wall and ceiling material in the existing stormwater pump room is being made because the specifications and drawings called for metal liner panels to be mounted on the existing structural members on the walls and ceiling. The existing gutters and columns are not all the same size, requiring cutting, fitting and pop rivet patches of the metal panels which will not make for smooth wall construction. With this type of construction and the panel fitting problems, the new panels may not have the watertight and strength capabilities intended. The requested substituted masonry wall will furnish a watertight smooth, esthetic surface for pump maintenance area.

2. Will proposed change alter size of the project? Yes X No \_\_\_\_\_

If yes, explain

Additional labor and material required.

3. Affect on operation and maintenance cost of this project:

N/A

\_\_\_\_\_  
Engineer



REQUEST AND JUSTIFICATION FOR CHANGE

1. Necessity for change: The rerouting of the proposed new natural gas line in the existing Main Control Building is necessary to allow the new gas meter to be installed within the plant security fencing. Also the rerouting will permit use of two existing gas meters. One meter will operate the raw sewage pump drive engine gas feed and the other, the feed to the plant heating boilers.
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

2. Will proposed change alter size of the project? Yes X No \_\_\_\_\_

If yes, explain

Additional labor and material required.

\_\_\_\_\_

\_\_\_\_\_

3. Affect on operation and maintenance cost of this project:

N/A

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
Engineer

SPECIFICATIONS FOR NEW DUPLEX SUMP PUMP

Furnish and install one duplex submersible pump system to be located in the existing aeration tank pipe gallery as shown on the drawings. The system shall include pumps, electrical controls, level controls, and accessories to make a complete automatic system.

Conditions

Each pump to have a capacity of 110 G.P.M., at a total head of 25 feet. Motor to be 1 horsepower, 4 phase, 60 Hertz for operation at 480 volts.

Motor

Submersible motor to be constructed with open winding and to operate in clean dielectric oil for cooling winding and lubricating motor bearings. Motor shaft to be sealed with mechanical shaft seal, having super lapped seal rings of carbon and ceramic. Integral motor and pump shaft to be of stainless steel supported by two ball bearings.

Material

Pump and motor housing to be of cast iron. Impeller to be cast iron of the non-clog type, passing 3/4" solids.

Electrical Controls

(Mercury switch type for duplex system.) Mercury switch type level controls shall be used to control sump level. To control automatic operation of pumps, three mercury switch level controls shall be supplied. Two of these controls act to close circuit for on-off operation at selected levels required and to operate alternator for alternation of sump on each cycle of operation. A third control acts as override and closes circuit of override and operates both pumps together. A fourth optional control acts at high water level to close circuit of alarm system. All controls to be fastened to 1-1/4" pipe with plastic ties. Pipe supported by removable cover plate attached to basin cover.

Control Cabinet

A Nema I enclosure shall be furnished. The control panel for the pumps shall include magnetic starters for each pump with overload protection, run lights, circuit breakers for each pump, and H-O-A switches for each pump and an alternating relay circuit. All control panels include a transformer to reduce control voltage to 24 volts.

Alarm

The high water alarm shall include: alarm bell and to be supplied in separate enclosure. Includes a warning light and silencing switch.

Basin Cover

A steel sump cover with separate cast iron pump covers shall be supplied. A separate cover shall be supplied for mounting level controls or float alternator.

Piping

All piping shall be furnished and installed by the contractor. Pumps to be connected to a single outlet and swing-type check valves are to be used in each discharge pipe.

SPECIFICATIONS FOR SUMP PUMP FOR NEW AERATION GALLERY SAMPLE SINK

Furnish and install one submersible sump pump as shown on the drawings. The pumps shall include all accessories with piping, automatic control pressure type switch and alarm.

The pump shall have a capacity of 110 GPM against a head of 25 feet. Motor shall be a minimum of one horsepower, 3 phase, 60 Hertz, for operation at 480 volts.

The submersible motors shall be constructed with open winding and shall operate in clean dielectric oil for cooling winding and lubricating motors bearings. The motor shaft shall be sealed with mechanical shaft seal, having super lapped seal rings of carbon and ceramic. The integral motor and pump shaft shall be stainless steel.

Pump and motor housings shall be cast iron. The impellers shall be cast iron of the non-clog type. No suction strainers or screens of any type shall be used. All fasteners shall be of 18-8 stainless steel.

The pumps shall have an oil isolated diaphragm-type level control to control sump level. The pressure diaphragm switch inside the control shall be protected by an exclusive oil isolation system preventing contact with sump water. The switch shall be set for 6-inch level.

The high water alarm shall include an alarm bell to be supplied in a separate enclosure and include a warning light, automatic reset silencing switch and mercury switch level control with power cord.

All piping shall be furnished and installed by the Contractor. The pump shall be connected to a single outlet with a check valve installed in the 2" discharge line.



**HNTB**

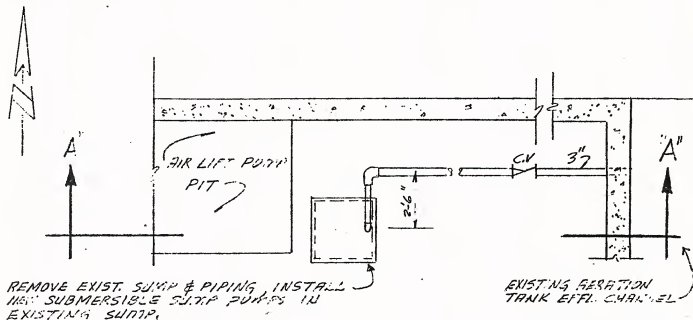
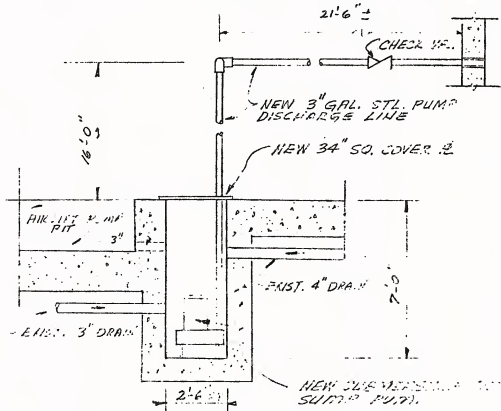
HOWARD NEEDLES TAMMEN &amp; BERGENDOFF

Made By *KIRLEY*

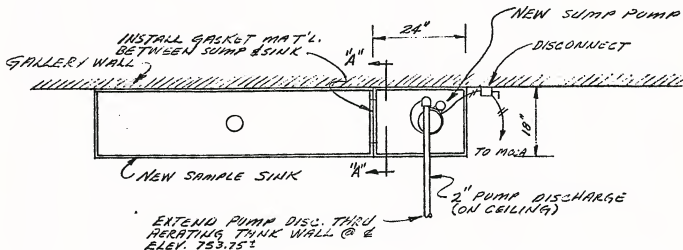
Checked by

Date *12-22-76*

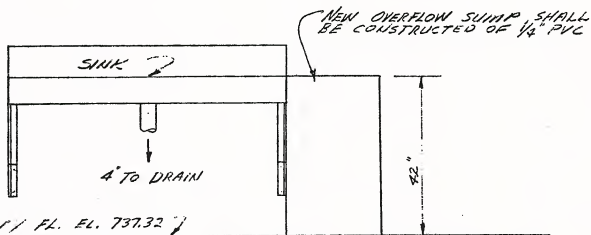
Sheet No.

Item No. *1**12-22-76**2-2*For *FT WAYNE W.P.C.P. - PROPOSED NEW SUMP PUMP IN EXIST. PIPE GALLERY*LOCATION PLAN OF PROPOSED NEW SUMP PUMPSECTION A-A

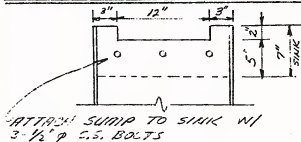
For FT WAYNE W.P.P. - SAMPLE SPK OVERFLOW SLIMP



PLAN OF NEW SAMPLE SHAFT IN NEW PIPE GALLERY



ELEVATION VIEW OF SAMPLE SINK



SECTION A-A

ITEM NO. 2

SPECIFICATIONS FOR NEW SPACE HEATER FOR COMPRESSOR ROOM

Furnish and install one new space unit heater in the southwest corner of the new gas compressor room of the Digester Control Building.

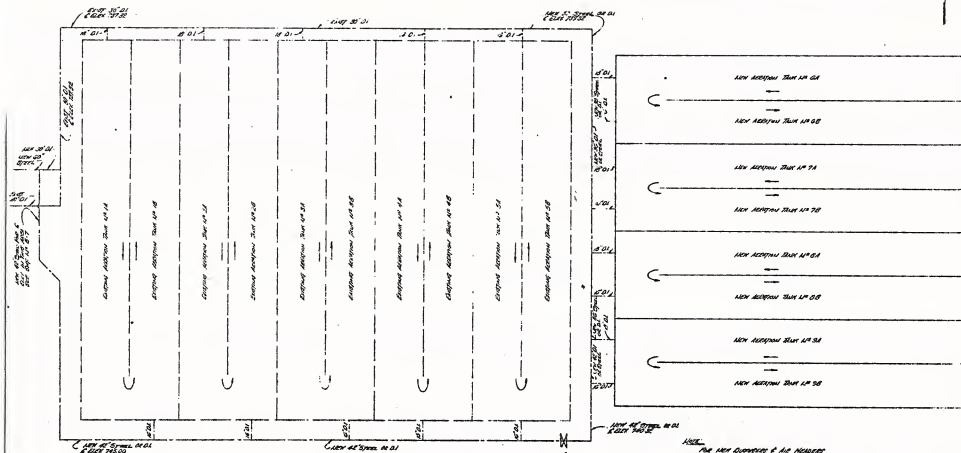
The unit shall be a vertical hot water type unit mounted at the ceiling of the compressor room. The unit shall operate with a hot water supply at a temperature of 200 degrees F. and shall have a capacity of 39.5 MBH with a 885 CFM fan, driven by a 1750 RPM, 1/6 HP, 115 Volt single phase electric motor. The unit shall be controlled from a wall mounted thermostat located in the compressor room.

The electrical power supply shall be furnished through a circuit breaker and conduit from panel MCC-P3A.

The unit heater, thermostat, power wiring and control wire shall be totally explosion proof.







PLAN  
SCALE 1"=8'

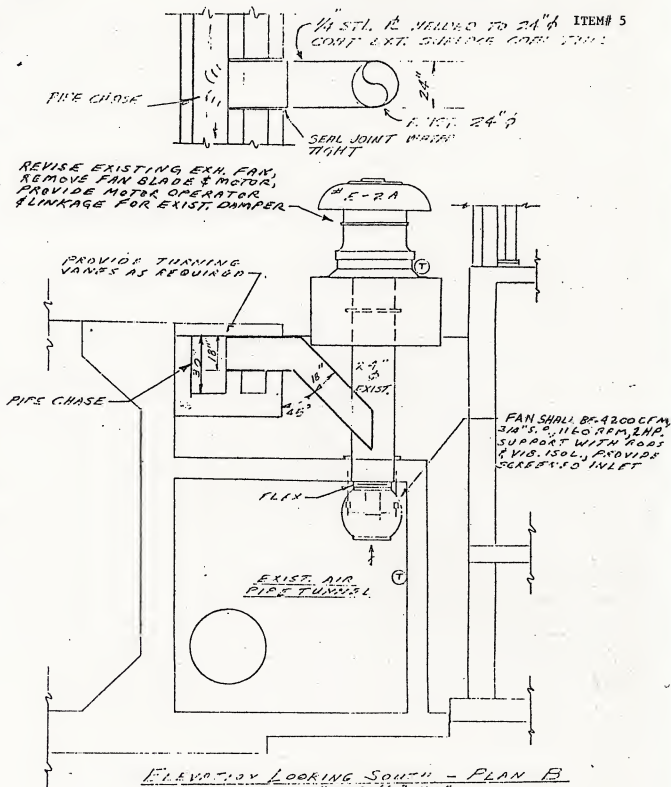
Furnish and install (1) new 42" Butterfly valve with extension stem. Valve shall be in accordance with Section D-12 of the contractual specifications.

REVISION	BY	DATE	APPROVED



Henry B. Stueg & Associates, Inc.  
Engineers  
1400 SOUTH TOWNSHIP STREET  
INDIANAPOLIS, INDIANA 46202

CONTRACT NO. 110000 110000-000	CITY OF FORT WAYNE, INDIANA WATER QUALITY CONTROL PROJECT WATER POLLUTION CONTROL PLANT ALTERNATE EXISTING AERATION TANKS PLAN-NEW & EXISTING AIR HEADERS	DATE 1-15-72	REV. 1
--------------------------------------	---	-----------------	-----------



NOTE:

1. BALANCE AIR @ 2400 CFM TO THE SOUTH & 1600 CFM TO NORTH
2. MOTOR OPERATED DAMPER IN REVISED E-2A WILL BE ACTIVATED BY THERMOSTAT ON EXTERIOR SURFACE OF HOOD IF TEMP. DROPS BELOW 40°F.
3. THE EXHAUST FAN WILL BE ACTIVATED BY A THERMOSTAT IN TUNNEL IF TEMP. RISES TO 65°F.

HNTB  
JOS-FORT WAYNE W.V.A.  
NO. 3263  
REV. DATE: 12-23-76  
PIPE CHASE VENTILATION

**HNTB**

HOWARD NEEDLES TAMMEN &amp; BERGENDOFF

For

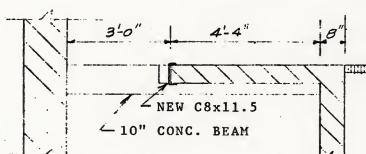
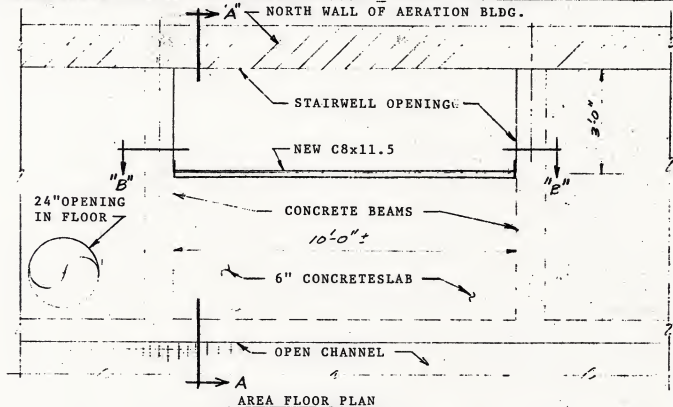
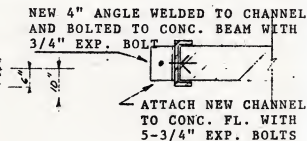
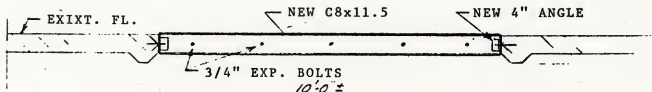
Made by  
**KELSEY**

Checked by

Date  
**2-24-77**

Date

Item No. 3

Job No.  
**3263-43-00**Sheet No.  
**1 of 1****FORT WAYNE, W.P.C.P. -- AERATION BLDG. -- FLOOR REIN. DETAIL****SECTION "A-A"****CONNECTION DETAIL****SECTION "B - B"**

- SYMBOL FOR EXISTING CONCRETE

RA 8817

- HAGERMAN-SHAMBAUGH - JOINT BIDDERS

TITLE OF ORDINANCE SPECIAL ORDINANCE - CHANGE ORDERS NOS. 15 & 16 - WPC PLANT ADDITIONS

DEPARTMENT REQUESTING ORDINANCE BOARD OF PUBLIC WORKS

*S-77-10-15*

SYNOPSIS OF ORDINANCE CHANGE ORDERS NOS. 15 & 16 - DIVISION I - WATER POLLUTION CONTROL PLANT

ADDITIONS, HAGERMAN-SHAMBAUGH - JOINT BIDDERS.

CHANGE ORDER NO. 15 - REQUEST FOR CHANGES AND MODIFICATIONS IN THE AREA OF THE MAIN CONTROL

ROOM, COMPUTER ROOM AND THE RELOCATION OF THE LUNCH ROOM NECESSITATED BY SIZE OF MASTER

CONTROL PANEL AND PROCESS CONTROL SYSTEM (LARGER THAN INITIALLY ANTICIPATED)

CHANGE ORDER NO. 16 - ADDITION OF OVERFLOW SUMP AND SUBMERSIBLE PUMP, NEW SPACE HEATER IN

DIGESTER GAS COMPRESSOR ROOM, REPLACEMENT OF TWO EXISTING ELECTRIC OPERATED WASTE SLUDGE

BUTTERFLY VALVES, ADDITION OF 42" BUTTERFLY VALVE ON NEW 42" AIR MAIN, HEATING SYSTEM FOR NEW

CONCRETE PIPE CHANNEL FROM CHLORINATION BLDG., REPLACEMENT OF UNDERGROUND CABLE WHICH HAS FAULTS,

NEW PIPE ANCHORS FOR WATER SYSTEM TO SUSTAIN HIGH PRESSURES, PLUS VARIOUS MODIFICATIONS,

REPLACEMENTS AND SUBSTITUTIONS OF WALL, CEILING & BLDG. MATERIAL DAMAGED, CRACKED, BUCKLED OR

INSUFFICIENT TO SUPPORT ADD'L WEIGHT COMMENSURATE WITH MATERIAL MODIFICATION.

EFFECT OF PASSAGE CORRECTION OF FLOOR PLANS AND MATERIAL MODIFICATION FOR INCREASED OPERATIONS

OF A BENEFICIAL NATURE

CHANGE ORDER NO. 15, INCREASE OF \$67,897.00 - TOTAL REVISED CONTRACT AMT. \$21,214,828.10

CHANGE ORDER NO. 16, INCREASE OF \$91,664.00 - TOTAL REVISED CONTRACT AMT. \$21,306,492.10

EFFECT OF NON-PASSAGE SELF-EXPLANATORY

MONEY INVOLVED (DIRECT COSTS, EXPENDITURES, SAVINGS) \$159,561.00 FROM FEDERAL FUNDS

ASSIGNED TO COMMITTEE \_\_\_\_\_

EP

*C. J. [Signature]*